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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1, 27, and 73

[AU Docket No. 14-252; GN Docket No. 12-268; DA 15-606]

Incentive Auction Task Force Releases Initial Clearing Target Optimization Simulations

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Incentive Auction Task Force provides the results of several staff simulations of the initial clearing target optimization procedure proposed in the Auction 1000 Comment PN and/or Comment PN as discussed further in this under the Supplementary Information. In this document, the Federal Communications Commission's (Commission) Incentive Auction Task Force seeks comment on the data and analyses released in this document and the attached Appendix.

DATES: Submit comments on or before June 3, 2015.

ADDRESSES: You may submit comments, identified by the docket numbers in this proceeding, AU Docket No. 14-252 and GN Docket No. 12-268, by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Federal Communications Commission's Electronic Comment Filing System (ECFS): <http://fcc.gov/ecfs/>. Follow the instructions for submitting comments.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail):

Federal Communications Commission, 9300 East Hampton Dr., Capitol Heights, MD 20743.

- U.S. Postal Service (First-class, Express, and Priority): Federal Communications Commission, 445 12th St., SW., Washington, DC 20554.
- Hand-delivered/Courier: Federal Communications Commission, 445 12th St., SW., Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

Instructions: All submissions received must include the agency name and docket number or Regulatory Information Number (RIN) for this document. All comments received will be posted without change to ECFS at <http://fcc.gov/ecfs/>, including any personal information provided. For detailed instructions on submitting comments and additional information on the rulemaking process, see the “Public Participation” heading of the SUPPLEMENTARY INFORMATION section of this document.

Docket: This document is in AU Docket No. 14-252 and GN Docket No. 12-268. For access to the docket to read background documents or comments received, go to ECFS at <http://fcc.gov/ecfs/>.

FOR FURTHER INFORMATION CONTACT: Madelaine Maior of the Wireless Telecommunications Bureau, Broadband Division, at (202) 418-1466 or e-mail to madelaine.maior@fcc.gov.

SUPPLEMENTARY INFORMATION:

Availability of Documents.

FCC Information relating to the Incentive Auction will be posted to and available on the LEARN website at: <http://www.fcc.gov/learn>. This document was released on May 20, 2015, and is available electronically at https://apps.fcc.gov/edocs_public/attachmatch/DA-15-606A1.pdf and https://apps.fcc.gov/edocs_public/attachmatch/DA-15-606A2.pdf. The complete text of this document as well as any comments and ex parte submissions will also be available for public inspection during

regular business hours in the FCC Reference Center (CY-A257) at the Federal Communications Commission, 445 12th Street, SW., Washington, DC, 20554. These documents will be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

Public Participation.

Pursuant to §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's ECFS. See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one active docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number. Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), or 202-418-0432 (tty).

I. SYNOPSIS

1. The clearing target selection procedure proposed in the Auction 1000 Comment PN¹ would, inter alia, impose a nationwide cap on impairments.² To conduct the simulations, the staff applied the

¹ Comment Sought on Competitive Bidding Procedures for Broadcast Incentive Auction 1000, Including Auctions 1001 and 1002, GN Docket No. 12-268, AU Docket No. 14-252, Public Notice, FCC 14-191, 29 FCC Rcd 15750 (Dec. 17, 2014) ("Auction 1000 Comment PN" or "Comment PN").

clearing target selection procedure proposed in the Auction 1000 Comment PN,³ with the following exceptions reflecting the range of comments in response to the Comment PN. Instead of accommodating impairments up to 20 percent, the simulations apply a standard of up to (but not equal to) the equivalent of one license block nationwide, as measured by weighted population (“weighted-pops”).⁴ The simulations also apply equal weighting to impairments regardless of whether they are in the uplink or downlink portion of the band.⁵ The data and information we release are illustrative only.⁶ The Commission will adopt final decisions regarding the proposed initial clearing target selection procedure in a forthcoming Auction 1000 Procedures PN.⁷

2. In order to conduct the simulations released with this document, the staff had to make certain assumptions about protection of foreign TV stations. With respect to Canada, the simulations assume for illustrative purposes only that the Commission will not need to protect vacant allotments in Canada’s TV bands, an option put forth in Industry Canada’s Consultation on Repurposing the 600 MHz Band

² Impairments are the result of assigning TV stations to channels in the 600 MHz Band in order to accommodate market variation. Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567, 6604-6607, paras. 81-87 (2014) (“Incentive Auction R&O”). See Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268, Second Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 13071 (2014) (adopting methodology for use during the incentive auction to predict inter-service interference between impairing TV stations and licensed wireless services in the 600 MHz Band).

³ Auction 1000 Comment PN, 29 FCC Rcd at 15762-69, paras. 27-45.

⁴ “Weighted-pops” refers to the proposed approach of weighting the population in a given PEA based on an index of area-specific prices from prior auctions and counting population in each block in the PEA. See id., 29 FCC Rcd at 15766-67, para. 38, 15803, paras. 162-63. The standard applied in the simulations would allow impairments at a smaller percentage of impaired weighted-pops at higher clearing targets and a larger percentage of impaired weighted-pops at lower clearing targets. We note that “the equivalent of one block nationwide” does not mean that one block would be impaired in each market, but rather that the total number of impaired weighted-pops cannot exceed the equivalent weighted-pops of one block nationwide in the aggregate. For example, under the clearing targets and associated band plans adopted in the Incentive Auction R&O, the equivalent of one block under an 84 megahertz clearing target would be approximately 14 percent of total weighted-pops nationwide, the equivalent of one block under a 114 megahertz clearing target would be approximately 11 percent, and the equivalent of one block under a 126 megahertz clearing target would be 10 percent.

⁵ This variation from the Comment PN eliminates the proposed weighting on impairments in the downlink band, under which a downlink impairment would be counted as impairing the corresponding uplink band, but an uplink impairment would not be counted as impairing the corresponding downlink band. Auction 1000 Comment PN, 29 FCC Rcd at 15762, para. 29. We also note that the simulations apply a 10 percent standard for treating a county’s entire population as impaired for the purposes of applying the primary objective; the Comment PN proposed a range between 10 and 20 percent. See id.

⁶ See Incentive Auction Task Force Releases Updated Constraint File Data Using Actual Channels and Staff Analysis Regarding Pairwise Approach to Preserving Population Served, GN Docket No. 12-268, ET Docket No. 13-26, Public Notice, 29 FCC Rcd 5687, 5687 (June 2, 2014) (“Aggregate Interference PN”).

⁷ Auction 1000 Comment PN, 29 FCC Rcd at 15753-54, para. 7.

proceeding.⁸ Mexico has not yet put forward any public plans for repurposing the 600 MHz Band; as a result, for purposes of these simulations all Mexican allotments are protected.⁹ Due to insufficient data at this time, the simulations do not reflect any interference from Mexican TV stations into the United States.¹⁰

3. The simulations released with this document reflect three different illustrative broadcaster participation scenarios: (1) participation by between 40 and 50 percent of broadcast stations; (2) participation between 50 and 60 percent; and (3) participation between 60 and 70 percent. We emphasize that these simulations model only the number of spectrum blocks that would be available under various initial clearing targets that would be feasible based on broadcaster participation in the auction. The simulations reflect no assumptions about auction outcomes in terms of which reverse auction participants would be selected as winning bidders, the winning bid amounts, the total proceeds of the forward auction, or whether the Commission would be able to close the auction at the initial clearing target.

4. For each of the three broadcaster participation scenarios, the Appendix provides information on the number of spectrum blocks that would be offered in the forward auction in each proposed license category (including totals nationwide, in the high-demand markets,¹¹ and by Partial Economic Area or “PEA”), and the same breakdown showing the total weighted-pops for the licenses in each category.

Under each scenario, the Appendix also shows results based on two approaches to assigning impairing

⁸ We emphasize that this proposal remains pending and has not been adopted by Industry Canada. We also note that, although Canada’s Consultation indicates it is considering pursuing a joint repacking plan with the United States, for purposes of the simulations we do not assume a joint repacking plan. See Consultation on Repurposing the 600 MHz Band, Spectrum Management and Telecommunications, Industry Canada, SLPB-005-14, para. 41 (rel. December 18, 2014), <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10891.html> (“Consultation on Repurposing the 600 MHz Band”).

⁹ See Incentive Auction R&O, 29 FCC Rcd at 6677-80, paras. 246-57.

¹⁰ We anticipate the Commission will have the data necessary to make these calculations in advance of the incentive auction, however. We note that including the predicted interference from Mexican stations would increase the impairment level in each of the scenarios. The simulations do reflect predicted interference from Canadian TV stations into the United States.

¹¹ “High-demand markets” is defined as the 40 largest PEAs by population. Auction 1000 Comment PN, 29 FCC Rcd at 15770, para. 51. These markets are considered high demand because the geographic areas they cover have usually generated the highest average prices per MHz-pop in prior spectrum license auctions and accounted for a substantial fraction of total auction revenues. Id.

stations to the 600 MHz Band: (1) the approach proposed in the Comment PN, under which the optimization software assigns stations within the 600 MHz Band so as to minimize impaired weighted-pops; and (2) an alternative approach that minimizes impaired weighted-pops but restricts the software from assigning stations to channels that could impair the duplex gap.¹²

5. The simulations indicate that the procedure proposed in the Comment PN for setting the initial clearing target, with the modifications described above, results in the selection of an initial clearing target of 84 megahertz in a scenario where 40 to 50 percent of broadcasters participate in the reverse auction (Scenario 1); an initial clearing target of 114 megahertz in a scenario where 50 to 60 percent participate (Scenario 2); and an initial clearing target of 126 megahertz in a scenario where 60 to 70 percent participate (Scenario 3). Under each scenario, the vast majority of the licenses offered in the band plan associated with each clearing target are Category 1 licenses.¹³ In Scenario 1, of the 2,842 possible licenses,¹⁴ only 46 are Category 2 licenses. For Scenario 2, of the 3,654 possible licenses, only 50 are Category 2 licenses. And for Scenario 3, of the 4,060 possible licenses, only 48 are Category 2 licenses. In all three scenarios, 88 to 93 percent of the licenses in the high-demand markets are Category 1 licenses and 84 to 88 percent of PEAs contain only Category 1 licenses.¹⁵ The results also reflect that, in lower broadcaster participation scenarios, excluding stations altogether from the duplex gap would

¹² Auction 1000 Comment PN, 29 FCC Rcd at 15765-66, paras. 35-36. The Appendix refers to (1) as “protecting the duplex gap” and the alternative approach as “not protecting the duplex gap.”

¹³ In each of the simulations, at least 93.4 percent of licenses are Category 1 licenses, and Category 2 licenses comprise at most 1.3 percent of total possible licenses. Under the Comment PN proposal, “Category 1” licenses are licenses that contain impairments affecting between zero and 15 percent of the population in a PEA, “Category 2” licenses are licenses that contain impairments affecting greater than 15 percent but less than or equal to 50 percent of the population, and licenses with impairments affecting more than 50 percent of the population would not be offered in the auction. See Auction 1000 Comment PN, 29 FCC Rcd at 15797-98, paras. 145-46.

¹⁴ We note that for purposes of this impairment analysis, the total number of licenses analyzed at each clearing target level includes only those licenses that could be offered in the continental United States.

¹⁵ For example, out of 406 PEAs, all but 62 will have only Category 1 licenses in the 84 megahertz initial clearing target scenario. The same is true for all but 53 in the 114 megahertz scenario and all but 47 in the 126 megahertz scenario. The total number of PEAs is 416, but the simulations results evaluate only impairments that affect the 406 PEAs in the continental United States. See generally Wireless Telecommunications Bureau Provides Details About Partial Economic Areas, GN Docket No. 12-268, Public Notice, 29 FCC Rcd 6491 (June 2, 2014). Further, under this scenario, of the 2,654 Category 1 licenses, 2,535 are entirely free of impairments (i.e. zero percent of the weighted-pops in the PEA are impaired). In Scenario 2, of the 3,469 Category 1 licenses, 3,334 are entirely free of impairments and in Scenario 3, of the 3,886 Category 1 licenses, 3,753 are entirely free of impairments. Once again, these totals reflect only those licenses that would be offered in the continental U.S. that are subject to impairments.

increase the number of Category 2 licenses and heavily impaired licenses that the Commission proposed not to offer in the incentive auction.¹⁶

II. PROCEDURAL MATTERS

6. This document is being issued pursuant to sections 0.31, 0.51, 0.61, and 0.131 of the Commission's rules by the Wireless Telecommunications Bureau and the Incentive Auction Task Force.¹⁷

A. Ex Parte Rules—Permit-But-Disclose Proceeding.

7. Pursuant to § 1.1200(a) of the Commission's rules, this matter shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must

¹⁶ In addition, the simulation results reflect that protecting the duplex gap at lower participation scenarios would result in the selection of lower clearing targets.

¹⁷ 47 CFR 0.31, 0.51, 0.61, 0.131.

be filed consistent with rule § 1.1206(b). In proceedings governed by rule § 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

B. Paperwork Reduction Analysis.

8. This document does not change, or propose to change, the information collection requirements subject to the Paperwork Reduction Act of 1995 ("PRA"), Public Law 104-13., contained in the Incentive Auction R&O.¹⁸ As a result, no new submission to the Office of Management and Budget is necessary to comply with the PRA requirements. In addition, it does not contain any new or modified "information collection burden for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).

¹⁸ See Incentive Auction R&O, 29 FCC Rcd at 6893, paras. 808-09.

C. Regulatory Flexibility Analysis.

9. The actions in this document have not changed, or proposed to change, the Final Regulatory Flexibility Analysis (“FRFA”), which was set forth in the Incentive Auction R&O.¹⁹ Thus, no supplemental FRFA is necessary.

Federal Communications Commission.

Roger Sherman,
Chief, Wireless Telecommunications Bureau.

¹⁹ See Incentive Auction R&O, 29 FCC Rcd at 6893, para. 807.

Appendix

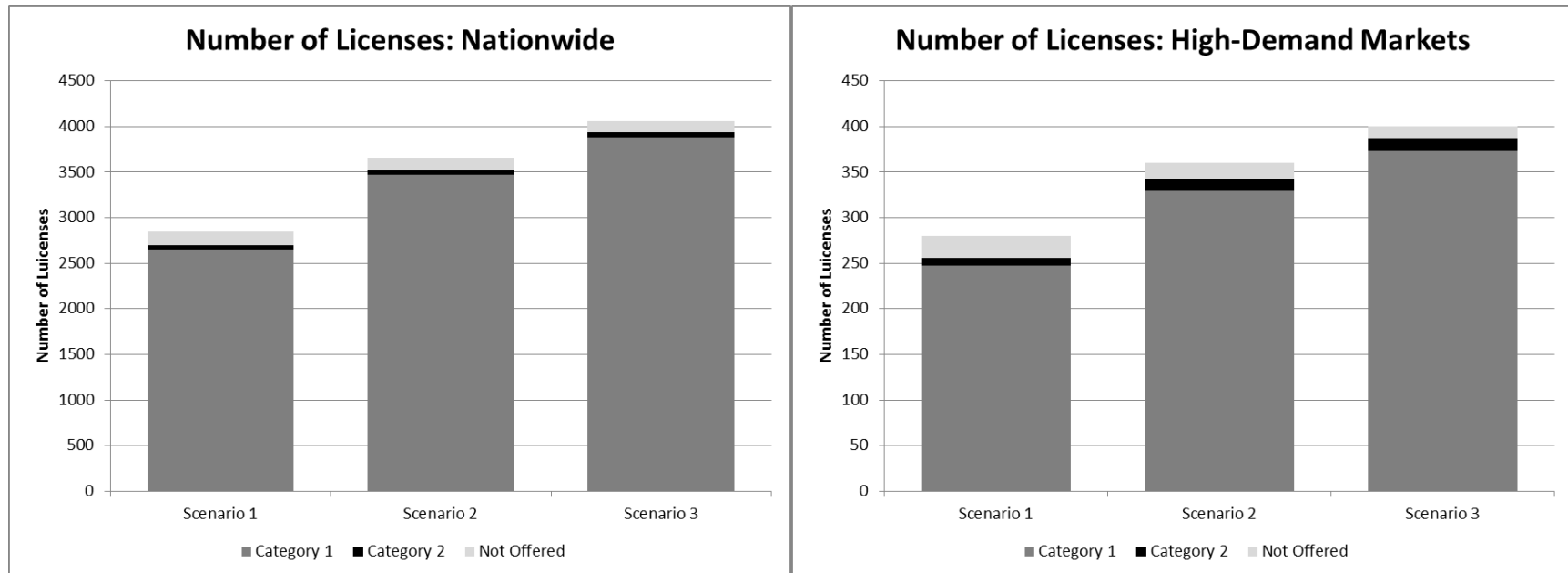
I. Overview

Scenario	Clearing (MHz)	Nationwide Impairment Threshold	Nationwide Impairment	Nationwide				High-Demand Markets**				PEA Analysis			
				Number of Category 1	Number of Unimpaired Category 1	Number of Category 2	Number Licenses Not Offered	Number of Category 1	Number of Unimpaired Category 1	Number of Category 2	Number Licenses Not Offered	Number of PEAs with only Category 1 Licenses Nationwide	Number of PEAs Nationwide With Less Than 3 Blocks Available	Number of PEAs with only Category 1 Licenses in High-Demand Markets	Number of PEAs With Less Than 3 Blocks Available in High-Demand Markets
1 (40-50% participation)	84	14%	13.1%	2654	2535	46	142	247	222	9	24	344	12	29	3
1 (40-50% participation; protecting Duplex Gap)	84	14%	16.7%*	2631	2500	50	161	241	224	9	30	334	17	27	4
2 (50-60% participation)	114	11%	9.1%	3469	3334	50	135	329	302	13	18	353	9	32	1
2 (50-60% participation; protecting DG)	114	11%	11.5%*	3434	3282	56	164	321	298	17	22	339	11	29	2
3 (60-70% participation)	126	10%	4.1%	3886	3753	48	126	373	355	13	14	359	10	32	2
3 (60-70% participation; protecting DG)	126	10%	4.4%	3884	3750	45	131	373	355	12	15	358	10	32	2

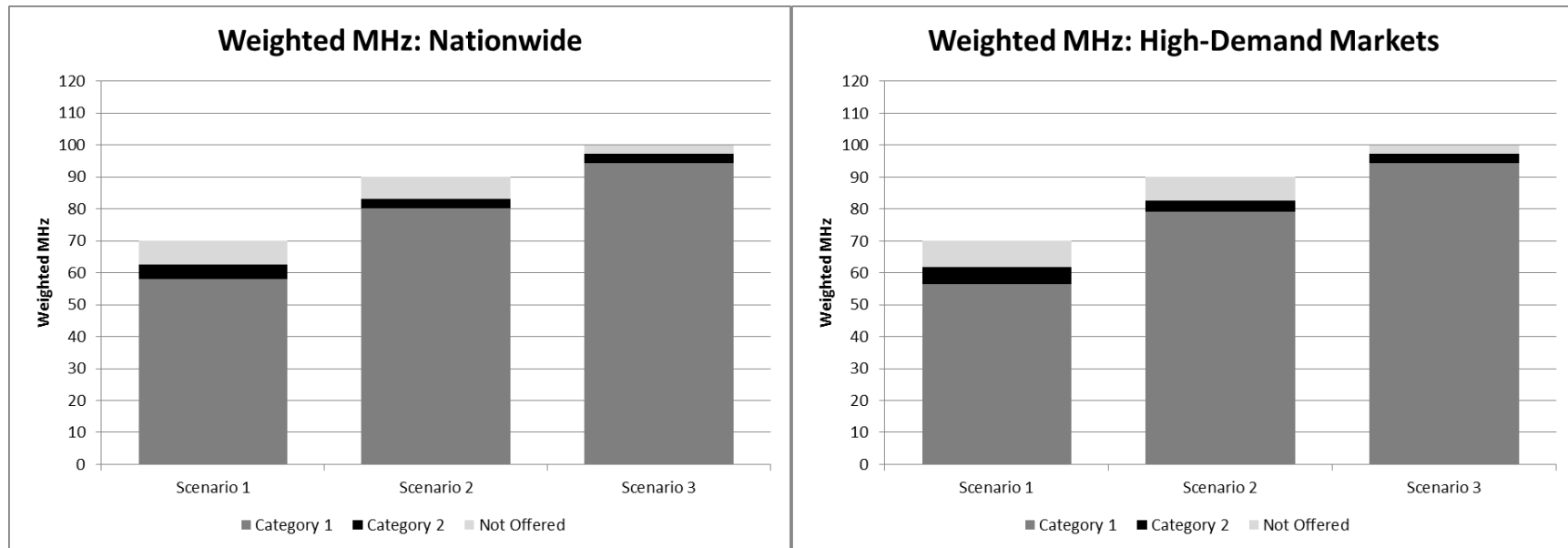
* The highlighted cells indicate impairment that exceeds the standard considered so these clearing targets would not be chosen and the initial clearing target would be lowered.

**“High-demand markets” is defined as the 40 largest PEAs by population.

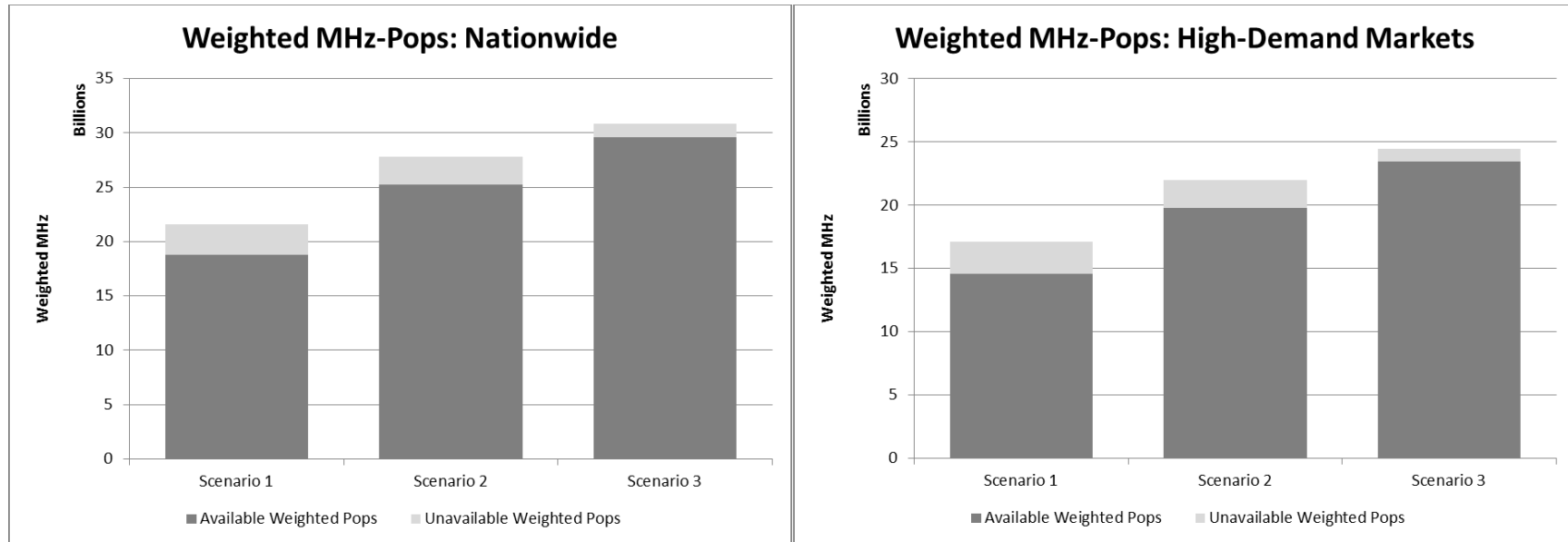
II. Number of Licenses Available in the Forward Auction Nationwide and in High-Demand Markets (Not Protecting the Duplex Gap)



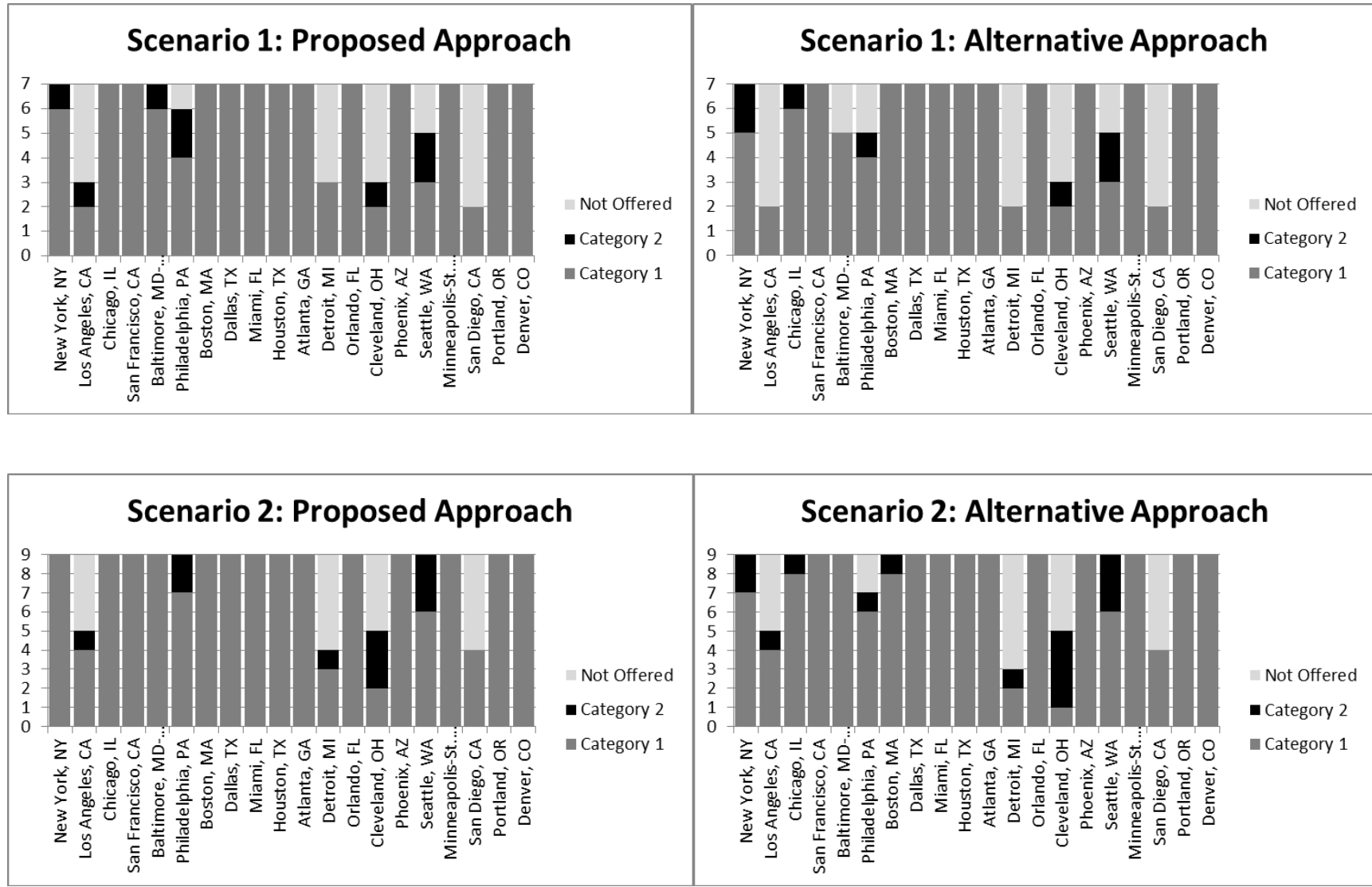
III. Weighted MHz Available in the Forward Auction Nationwide and in High-Demand Markets (Not Protecting the Duplex Gap)

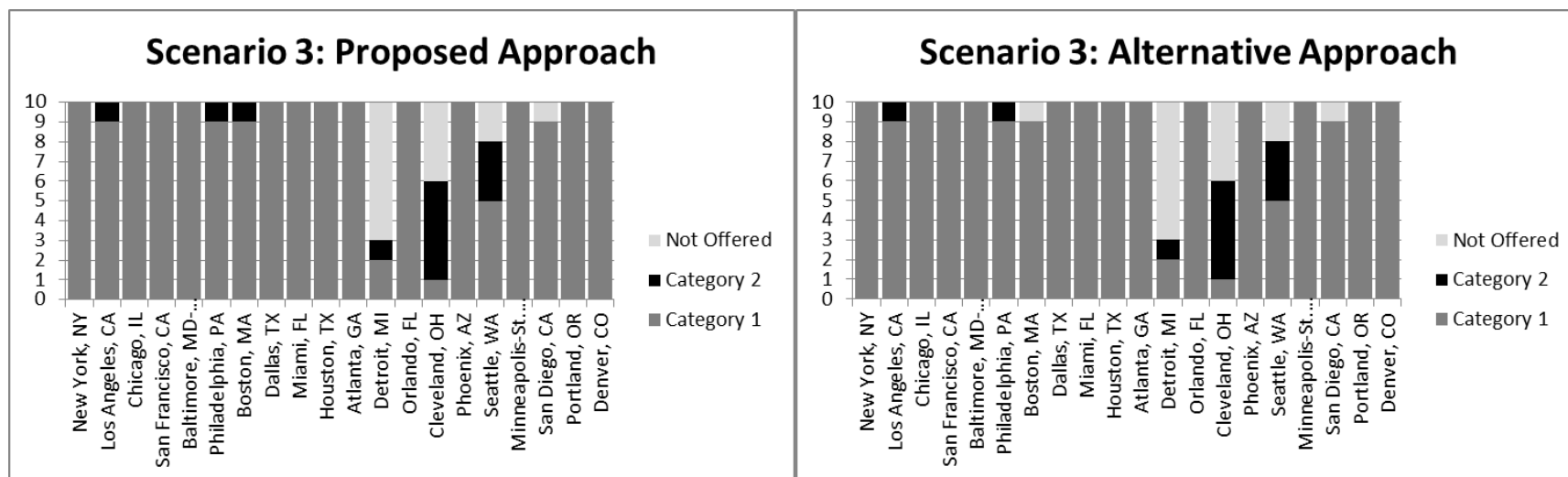


IV. Weighted MHz-Pops Available in the Forward Auction Nationwide and in High-Demand Markets (Not Protecting the Duplex Gap)



V. Impact of Protecting the Duplex Gap: Comparison of Forward Auction Licenses Available in the Top 20 PEAs





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